AFOQT Prep

Lesson 2
Verbal Analogies
Math Knowledge

Verbal Analogies

Ex: BEAVIS is to BUTTHEAD as:

A. Lt Bartlett is to Lt Slechta
B. Apple is to Orange
C. Building is to Skyscraper
D. High is to Low

25 Questions, 8 Minutes
Time Management: 3 Questions Per Minute

Strategies To Remember

- REPHRASING THE QUESTION
- RECOGNIZING 5 TYPES OF ANALOGIES
- PART OF SPEECH: VERB, NOUN, ADJECTIVE, ETC
- TENSE: PAST, PRESENT, FUTURE

5 Types of Verbal Analogies

- SYNONYM/DEFINITION
- ANTONYM
- FUNCTION/RELATIONSHIP
- TYPE
- PART-TO-WHOLE

5 Types of Analogies

- SYNONYM: same meaning or definition

Ex: ALTRUISTIC is to UNSELFISH as SAFETY is to:

A. HEIGHT
B. OBJECTIVE
C. QUAINT
D. SECURITY
E. BELT

Ex: SANCTUARY is to REFUGEE:

F. CAVE is to BEAR
G. VAULT is to VALUABLES
H. TRIUMPH is to CONTEST
I. CARNIVORE is to OMNIVORE

5 Types of Analogies

- ANTONYM: opposites

Ex: HAPPY is to SAD as RIGID is to:

A. STIFF
B. FLEXIBLE
C. CONSERVATIVE
D. TIGHT
E. FAULTY

Ex. PRIDE is to HUMBLE:

F. SERVILE is to SERVANT
G. HUMOR is to SOMBER
H. WOOD is to TREE
I. CAMPING is to RECREATION
J. SHOVEL is to DIG

5 Types of Analogies

- FUNCTION/RELATIONSHIP

Ex: HAMMER is to NAIL as:

A. PEN is to INK
B. KNIFE is to SHARP
C. CAR is to WHEEL
D. SCISSORS is to PAPER
E. GLUE is to TUBE

Ex. BAROMETER is to PRESSURE as CALIPERS is to:

F. CUTTING
G. HEIGHT
H. CONSTANCY
I. THICKNESS
J. PLIERS

5 Types of Analogies

- TYPE: #1 is a type of #2

Ex: ARGON is to GAS as:

A. BOOK is to LIBRARY
B. MAPLE is to TREE
C. HEART is to PACEMAKER
D. PAUPER is to MONEY
E. COMPUTER is to KEYBOARD

Ex. TOOL is to DRILL as POEM is to:

F. SONG
G. MACHINE
H. SONNET
I. BIRD
J. NOVEL

5 Types of Analogies

- PART-TO-WHOLE

Ex: SINGER is to CHOIR as:

A. JUICE is to COLA
B. SENATOR is to REPRESENTATIVE
C. PILOT is to JET
D. FOREARM is to SKELETON
E. BUTTON is to NOZZLE

<u>Alternately presented as: Whole-to-Part</u>

Ex: DOLLAR is to QUARTER as:

F. MEDICINE is to HARM
G. MILK is to BREAKFAST
H. HANDS is to CLOCK

PREPARE TO TEST

Time Management: 3 Questions Per Minute

1. FORK is to EAT as PEN is to:
    A. INK
    B. PENCIL
    C. WRITE
    D. LETTER
    E. BOOK

2. BOOK is to CHAPTER as BUILDING is to
    A. ELEVATOR
    B. LOBBY
    C. ROOF
    D. STORY
    E. WING

3. ACTOR is to STAGE as:
    A. PATIENT is to DOCTOR
    B. OUTSIDE is to BENCH
    C. GARAGE is to CAR
    D. TEACHER is to CLASSROOM
    E. METER is to ELECTRICITY

4. TYRANT is to CRUELTY
    A. DRAWL is to SPEAKER
    B. COMPILE is to DISSEMBLE
    C. ACCOLADE is to AWARD
    D. SYCOPHANT is to FLATTERY
    E. WAX is to CANDLE

5. SLOTH is to LAZINESS
    A. GENTEEL is to VULGAR
    B. INSOMNIAC is to SLEEPLESSNESS
    C. HACKNEYED is to UNIQUE
    D. ACCEDE is to RESPECT
    E. CRYPT is to TOMB

6. HALLOWED is to SACRED
    A. SOLDIER is to ARMY
    B. GAMUT is to PROVINCIAL
    C. LIBEL is to PRAISE
    D. NOMADIC is to WANDERING
    E. OBLIVIOUS is to KEEN

7. DANCER is to ENSEMBLE
    A. YOGURT is to MILK
    B. STUDENT is to CLASS
    C. MOUNTAIN is to PRECIPICE
    D. FLOCK is to SHEEP
    E. DOODLE is to NOTEBOOK

8. ANARCHIST is to DISORDER
    A. YAWN is to BOREDOM
    B. MONTH is to YEAR
    C. GOOD is to BEST
    D. PACIFIST is to PEACE
    E. CONSTELLATION is to STARS

9. DOCTOR is to HEALING
    A. PRISON is to GUARD
    B. DINOSAURS is to PALEONTOLOGIST
    C. AUTHOR is to WRITING
    D. CLAP is to HANDS
    E. PLANETS is to UNIVERSE

10. POLICE is to LAW
    A. LION is to DEN
    B. BRUSH is to HAIR
    C. CONDUCTOR is to ORCHESTRA
    D. BOOK is to LIBRARY
    E. CLERGY is to RELIGION

11. COOL is to FRIGID
    A. SPEAKER is to ASSEMBLY
    B. BUG is to COLD
    C. WATER is to BUCKET
    D. DISLIKE is to DETEST
    E. STUNT is to GROWTH

12. BREEZE is to GALE
    A. EYES is to FACE
    B. MALEVOLENT is to CHARITABLE
    C. HOSTILE is to ENEMY
    D. SNOWFLAKE is to BLIZZARD
    E. PUNGENT is to SMELL

13.CRUMB is to LOAF

A. PAINTER is to CANVAS
B. PUDDLE is to OCEAN
C. SOUND is to MICROPHONE
D. PRIDE is to FALL
E. FEATHER is to QUILL

14.CROISSANT is to PASTRY

A. SCHOOL is to FISH
B. TREE is to PEACH
C. HAIKU is to POEM
D. KNIFE is to CUT
E. VENISON is to DEER

15.ROMANCE is to NOVEL

A. BOON is to BLESSING
B. RAP is to MUSIC
C. CREDO is to IMMORAL
D. FRICTION is to SANDPAPER
E. DETERMINED is to HESITANT

16.TANKER is to SHIP

A. INSECT is to ANT
B. MATRIARCH is to MOTHER
C. MINIVAN is to AUTOMOBILE
D. COW is to VEAL
E. DEGREE is to COLLEGE

17. WHALE is to OCEAN

A. CONGREGATION is to CROWD
B. POUND is to DOGCATCHER
C. CHURCH is to STEEPLE
D. COURT is to TENNIS
E. BEE is to HIVE

18.PRISTINE is to UNSPOILED

A. TAINTED is to CONTAMINATED
B. EASE is to TAXING
C. ARID is to DELUGED
D. CHAMPIONED is to ABASED
E. ANIMUS is to KINDNESS

19. BIRTH is to LIFE
    A. RODENT is to SKUNK
    B. GENTRY is to NOBILITY
    C. PROLIFERATE is to CEASE
    D. WINCE is to JOY
    E. EXPOSURE is to INFECTION

20. MEDITATION is to RELAXATION
    A. ORDER is to CHAOS
    B. SYMPTOMS is to BACTERIA
    C. HONE is to WHET
    D. SATIATION is to SATISFACTION
    E. DEXTERITY is to ACCOMPLISHMENT

21. ISOLATION is to LONELINESS
    A. SHORTEN is to NIP
    B. QUIET is to TACIT
    C. PROMOTION is to ADVANCEMENT
    D. MONOTONY is to HOMOGENOUS
    E. RUSTIC is to CITY

22.BATHING is to CLEANLINESS

A. MEDICINE is to HARM
B. IMPRISONMENT is to PUNISHMENT
C. BANJO is to COUNTRY
D. BALLOON is to HELIUM
E. SADNESS is to BLUES

23.SMILING is to HAPPINESS

A. EXERCISE is to RUNNING
B. MOTORCYCLE is to TRAVEL
C. MILK is to BREAKFAST
D. SCOWLING is to DISPLEASURE
E. SHOUTING is to POWER

24.HANDS is to CLOCK

A. PIANO is to MUSIC
B. JUSTICE is to COURT
C. LEGS is to BODY
D. ANNOYED is to FURIOUS
E. CARNIVORE is to TIGER

25. TENSION is to STRESS as VIRUS is to
    A. LIVING
    B. DISEASE
    C. BACTERIA
    D. IMMUNITY
    E. MORBIDITY

ANSWERS

1. C
2. D
3. D
4. D
5. B
6. D
7. B
8. D
9. C
10. E
11. D
12. D
13. B

Math Knowledge

25 Questions

22 minutes

Just over 1 minute per question

Focus on organizing your thoughts quickly and efficiently while solving

Practice organization on your scratch paper to prevent rework

Math Vocab Review

Tangent
Parallel
Perpendicular
Integer
Rational/Irrational Number
Mixed Number
Fraction
Reciprocal

Math Concepts Review

- Trinomials
  - Multiplying and Factoring
  - Remember FOIL?
- Standard mx+b equation for a line
- Division with decimals
- Mixed numbers and fractions with decimals

PREPARE TO TEST

1. 17/20 + 6/100 + 15/50 is equal to
   A. 43/50
   B. 111/100
   C. 121/100
   D. 83/50
   E. 289/25
2. 5v-u=-2 and –v+9u=18, then the simultaneous solution of the given equation is:
   A. u=3, v=9
   B. u=2, v=0
   C. u=1, v=-9
   D. u=-2, v=-36
   E. u=3, v=-15

3. Which of the following statements is false? A triangle can have
   A. three equal angles
   B. one obtuse angle
   C. three equal sides
   D. two right angles
   E. three acute angles
4. The value in -1/9√(81) is equal to
   A. 0
   B. -1
   C. 1
   D. -9
   E. 9

5. The factors of $30x^2-30$ are

A. (5x-6), (6x+5)
B. (15x+5), (2x-6)
C. (5x-6), 6x-5)
D. (30x-5), (x+6)
E. (5x+5), (6x-6)

6. Solve 5/6+3/4+(3/2*9/21)

A. 66/52
B. 187/84
C. 120/57
D. 66/145
E. 123/124

7. Solve for x using the following two equations:
   2x+4y=10 and 9x-4y=20
   A. x=21/15
   B. x=40/21
   C. x=30/11
   D. x=8/9
   E. x=29/13
8. The hypotenuse of a right triangle whose legs are 3 feet and 4 feet is
   A. 4
   B. 5
   C. 6
   D. 7
   E. 8

9. If $w=4c$ then $(3/4)w=$
   A. $3/3c$
   B. $4/3c$
   C. $3c$
   D. $c/3$
   E. $c/4$
10. Factor $x^2+7x+10$
   A. $(2x+2)(x+5)$
   B. $(x+5)(x+2)$
   C. $(x+2)(2x+2)$
   D. $(2x+5)(x+5)$
   E. $(2x+)(x+10)$

11. 12.687x10-4 is equal to
    A. 1.2687
    B. .12687
    C. .012687
    D. .0012687
    E. .00012687
12. What is the probability of randomly drawing an odd number between 24 and 33 (inclusive)?
    A. 50%
    B. 66%
    C. 75%
    D. 80%
    E. 90%

13. 2/3*3/4*4/5*5/6*6/7*7/8=
    A. 1/16
    B. 1/8
    C. ¼
    D. ½
    E. None of the above
14. $10^5*10^6*10^7$=
    A. 10^{15}
    B. 10^{18}
    C. 10^{21}
    D. 10^{24}
    E. 10^{30}

15. $10^y/10^z$ equals
    A. $10^{y/z}$
    B. 10^{yz}
    C. 10^{y+z}
    D. 10^{y-z}
    E. None of the above
16. Solve for x when: $(2x)/7=2x^2$
    A. 1/7
    B. 2/7
    C. 2
    D. 7
    E. 14

17. $(-3)^3 =$

A. 9
B. -9
C. 27
D. -27
E. None of the above

18. $\frac{x-2}{x^2-6x+8}$ can be reduced to:

A. $1/(x-4)$
B. $1/(x-2)$
C. $(x-2)/(x+2)$
D. $1/(x+2)$
E. $1/(x+4)$

19. What are the next two choices following the below pattern?

A R C S E T G ___ ___

A. UH
B. HI
C. UI
D. IU
E. IH

20. What is the next logical choice following the below pattern?

2 4 12 48 ___

A. 96
B. 144
C. 192
D. 204
E. 240

21. The sum of all exterior angles of a triangle is always
   A. 540 degrees
   B. 720 degrees
   C. 900 degrees
   D. 1080 degrees
   E. 1260 degrees

22. √(28) - √(7) reduces to
   A. √(4)
   B. √(7)
   C. 3√(7)
   D. √(21)
   E. -√(35)

23. The volume of a cylinder with radius b and height w is

A. πbw
B. $2\pi bw$
C. $2\pi b^2 w$
D. $4\pi b^2 w$
E. None of the above

24. The sum of the interior angles of a pentagon is

A. 360 degrees
B. 540 degrees
C. 720 degrees
D. 900 degrees
E. 1180 degrees

25. If $2^n=8$, what is the value of 3^{n+1}?

A. 70
B. 81
C. 95
D. 102
E. None of the above

Answers

1. c
2. b
3. d
4. b
5. e
6. b
7. c
8. b
9. c
10b
11d
12a
13c
14b
15d
16a
17d
18a
19c
20e
21c
22b
23e
24b
25b

Review

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B. 81
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D. 102
E. None of the above

Conclusion

Do homework!

Reinforce these concepts tonight or you will not retain them

Next lesson – Instruments and Table Reading